



Reg. No.:

U8399

Name:.....



University of Kerala

First Semester Degree Examination, November 2024

Four Year Under Graduate Programme

Discipline Specific Core Course

STATISTICS

UK1DSCSTA107 - BASIC STATISTICS I

Academic Level: 100-199

Time:1½ Hours

Max.Marks:42

Part A.

Answer All Questions, Objective Type. 1 Mark Each.

(Cognitive Level: Remember/Understand) 6 Marks. Time: 6 Minutes

Qn. No.	Question	Cognitive Level	Course Outcome (CO)
1.	Which of the following represents Systematic sampling a) selection of n contiguous units b) selection of n units situated at equal distance c) selection of n largest units d) selection of n middle units in a sequence	Understand	CO4
2.	What role do state statistical departments play?	Understand	CO1
3.	The magnitude of the standard error of an estimate is an index of its a)Accuracy b)Precision c)Efficiency d)All the above	Understand	CO4
4.	What type of sampling is primarily used in National Sample Surveys?	Understand	CO4
5.	Identify the primary purpose of a census.	Understand	CO4
6.	What is the main objective of the statistical system in India?	Understand	CO1

Part B

Answer All Questions , Short Answer. 2 Marks Each.

(Cognitive Level: Understand/Apply)

8 Marks. Time: 24 Minutes

Qn.	Question	Cognitive	Course
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No.		Level	Outcome (CO)
7.	Explain simple random sampling?	Understand	CO4
8.	Write the full form of the following abbreviations a) CSO b) NSSO c) MOSPI d) NSO	Understand	CO1
9.	Explain qualitative and quantitative characteristics. Give an example of each.	Apply	CO2
10.	Establish the relation between raw moments and central moments	Apply	CO3

Part C.

Answer all 4 Questions, choosing among options within each question.

Long Answer. 7 marks each.

(Cognitive Level: Apply/Analyse/Evaluate/Create)

28 Marks. Time: 60 Minutes

Qn. No.	Question	Cognitive Level	Course Outcome (CO)
11.	Explain 1) Boxplot 2) Lorenz curve 3) Gini Index OR Explain classification of data	Apply	CO2
12.	Calculate the first four moments of the following distribution about the mean and hence find β_1 and β_2 x : 0 1 2 3 4 5 6 7 8 f: 1 8 28 56 70 56 28 8 1 OR The first four raw moments of a distribution is given by - 1.5, 17, -30 and 108. Find the first four central moments	Apply	CO3
13.	Draw the histogram for the following distribution Class: 0-20 20-40 40-80 80-100 100-110 110-120 Frequency: 3 10 15 18 8 6 OR Draw the ogives for the following data and find its median Class: 0-10 10-20 20-30 30-40 40-50 50-60 Frequency: 3 15 17 12 3 10	Apply	CO2
14.	Calculate quartiles, D_5 and P_{60} graphically using the following data Class : 0-10 10-20 20-30 30-40 40-50 50-60 Frequency: 3 9 15 30 18 5 OR Calculate the quartile deviation of the data x : 5 10 15 20 25 30 35 f: 1 8 20 15 30 16 10	Apply	CO3